

What is claimed is:

1. An ONO flash memory array for improving a disturbance between adjacent memory cells, comprising:

- 5 a substrate having a first and second buried diffusion regions;
- a channel between the first and second buried diffusion regions;
- an ONO layer above the channel for memory storage;
- 10 a first pocket of a first concentration implanted on one side of the channel close to the first buried diffusion region; and
- a second pocket of a second concentration implanted on the other side of the channel close to the second
- 15 buried diffusion region.

2. The memory array of claim 1, wherein the first concentration is higher than the second concentration.

20 3. An ONO flash memory array for improving a disturbance between adjacent memory cells, comprising:

- a substrate having a first and second buried diffusion regions;
- a channel between the first and second buried diffusion
- 25 regions;

an ONO layer above the channel for memory storage; and
a pocket implanted on one side of the channel close to the
first buried diffusion region.